



**Hidden Lake Float Home Association FY15  
Wastewater Project (pop. 55)  
SRF Loan #WW 1504  
\$1,200,000**

**Preliminary Green Project Reserve Justification**

**Categorical GPR Documentation**

INSTALLS PRESSURIZED WASTEWATER COLLECTION SYSTEM (Innovative). Categorical GPR per 4.2-6 *Decentralized wastewater treatment solutions to existing deficient....onsite wastewater systems; and 4.2-6b...Some decentralized systems, particularly cluster or community systems, often utilize alternative methods of collection with small diameter pipes which can flow via gravity, pump, or siphon, including pressure sewers...tanks are typically installed at each... location upstream of the final treatment and dispersal site....; also 4.4-1 State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions. 4.4-1a Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state.*

# SMALL PRESSURE SEWER SYSTEM<sup>1</sup>

## Summary

- 22 float homes in Heyburn State Park operate with substandard independent wastewater management systems. The proposed project includes consolidating the float home systems with the Park's centralized wastewater collection and treatment system (CSCTF).
- The project is based on an innovative application of small pressure pumping systems with ultimate land application of treated wastewater.
- Estimated loan amount = \$1,200,000 • Estimated GPR portion of loan = 63% (\$750,000)



Figure: On-shore Collection Tanks

## Background

- The Hidden Lakes Float Homeowners Association (HLFHA) is a non-profit 501(c)3 that represents the owners of 22 float homes which individually lease space along the shore line of Heyburn State Park and are seeking a permanent, innovative solution to their wastewater management needs.
- Each float home is currently configured with a small on-board pump. Wastewater is pumped from each float home to an individual on-shore 700 gallon holding tank. The holding tanks are pumped once or twice per season by an Idaho licensed pumper/hauler. After pumping, the wastewater is hauled (by boat) to an existing pump station at the Marina.
- This type of disposal is very inefficient and does not take advantage of the use of the Park's centralized waste management system, whose original engineering was to also accommodate sewer services for the float homes.

## Results

- The Park's sewer treatment network presently extends throughout Heyburn State Park within relatively close proximity to the float homes. Ultimate disposal is through land application of the treated effluent.
- The extent of work required for this project includes implementing new individual holding tank/pump chambers located above the 100-year flood plain. Wastewater will be pumped from each individual basin through a pressure collection system before being distributed into the Park's CSCTF.
- The project represents a decentralized system managed under the Idaho Department of Parks and Recreation, which is a central management entity with enforceable program requirements.
- The application of a small pressure sewer system to manage the wastewater generated from the HLFHA can be considered an innovative solution to the unique wastewater problems presented by the permanent float homes.

## Conclusion

- The project is an innovative wastewater management solution for a decentralized cluster of homes under common ownership under very unique environmental conditions.
- **GPR Costs:** New holding tanks/pressure conveyance system = \$750,000.
- **GPR Justification:** The project is Categorical GPR-eligible (Innovative) by Section 4.2-6 *Decentralized wastewater treatment solutions to existing deficient...onsite wastewater systems*; and 4.2-6a *Decentralized wastewater systems include individual onsite and/or cluster wastewater systems used to collect...relatively small volumes of wastewater... A cluster system is a wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings ... and conveys it to a treatment and dispersal system located on a suitable site near the dwellings...EPA recommends that decentralized systems be managed under a central management entity with enforceable program requirements*; also 4.2-6b...*Some decentralized systems, particularly cluster or community systems, often utilize alternative methods of collection with small diameter pipes which can flow via gravity, pump, or siphon, including pressure sewers...tanks are typically installed at each... location upstream of the final treatment and dispersal site. Collection systems can transport raw sewage or septic tank effluent. 4.4-1 State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions. 4.4-1a Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state. (\$750,000).*

<sup>1</sup> NOTE: Analysis is preliminary and will be completed when project has been designed and actual specifications are available.